Megapixel IP Vandal Proof PoE M12 Mini Dome
ACM-3703 series

Ver. 090518

Hardware User's Manual

ACTi

www.acti.com

0 PRECAUTIONS

1. **Read these instructions**
   All the safety and operating instructions should be read before the product is operated.
2. **Heed all warnings**
   All warnings on the product and in the instruction manual should be adhered to.

The symbol indicates the following items, please carefully read the description next to each symbol.

   a. Failure to follow the safety instruction given may directly endanger people, cause damage to the system or to other equipment.
   b. The requirements to make this device work, including hardware, computer settings, network settings, and operation procedures.
   c. The tips to make using this device easier, more convenient and more efficient.

3. **Servicing**
   Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Trademarks

All names used in this manual for hardware and software are probably registered trademarks of respective companies.

Liability

Every care has been taken during writing this manual. Please inform your local office if you find any inaccuracies or omissions. We cannot be held responsible for any typographical or technical errors and reserve the right to make changes to the product and manuals without prior notice.

FCC/CE Regulation

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses,

and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Table of Contents

1 INTRODUCTION

1.1 Package Contents

ACM-3703



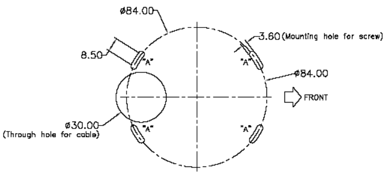
Product CD



Warranty Card



Drill Template



Mount Screws



Allen/Hex Key



M12 Field Installable Feed Through Adaptor (ACM-3703 Only)



1.2 Features and Benefits

This IP device is a cutting-edge digital video transmission device. It can compress and transmit real time images with outstanding images quality (SXGA, 1280x1024) at reasonable bandwidth through a standard TCP/IP network. That is because it is Ethernet ready and has the powerful ARM9 SoC with excellent system performance to offer dual streams of MPEG4/MJPEG, and both formats offer megapixel resolution. In addition, with these powerful hardware platform, excellent SDK support and powerful respective apparatuses (e.g. the transcoder), this IP device is your best choice building up either conventional IP surveillance system or intelligent IP surveillance system.

MPEG-4/MJPEG Dual Streaming

With excellent system performance, MPEG-4/MJPEG are supported. It brings superior image quality not only 30 frame per second in VGA resolution, but also offers up to 7 frames per second in SXGA (1280x1024).

Digital Time Code Embedded

The "Digital Time Code Embedded" function is to embed the recording time in the MPEG bit stream. Therefore, each image frame has its respective time when it was recorded. It is very useful when users want to find the video at an exact time or between a certain time intervals.

DDNS Supported

This IP device supports DDNS (Dynamic Domain Name Server), users can set this IP device at a virtual domain name (such as cam1.Taipei.xxx) at dynamic IP. Everyone can use the virtual domain name to view the video anywhere that has the access to the internet.

Build-in Hardware Motion Detection

No more external motion sensors are required. Each IP device can be set up to 3 detection areas. By tuning the object size and sensitivity, it is very reliable to fit into your environment. Besides, hardware motion detection delivers better sensitivity and responds faster than software motion detection.

Bundle Powerful Surveillance Software

To extend the capabilities of the IP outdoor rugged dome series, a

powerful surveillance program is included in the package and is very free to use. Users can easily utilize the existing PC to be a digital video recorder. Schedule recording and manual recording keep every important image recorded in the local hard disk. Reliable and accurate motion detection with instant warning makes you responsive in every condition. Quick and simple search and playback function lets you easily find the images you want.

Software Development Kit Support

This IP device can be integrated or controlled by user’s application program through the Streaming Library or ActiveX control. With its high level programming interface, software developer’s time and efforts to is highly reduced.

1.3 Safety Instructions

Don’t use the power supply with other than what we revommend

This device is likely to be damaged or damage other equipments / personnel, if you use a power supply with different voltage than the one included with this device. All warranty of this product will be voided in the situations above.

Don’t open the housing of the product

Cleaning

Disconnect this video product from the power supply before cleaning.

Attachments

Do not use attachments not recommended by the video product manufacturer as they may cause hazards.

Don’t use accessories not recommended by the manufacturer

- **Only install this device and the power supply in a dry place protected from weather**
- **Servicing**

Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Damage Requiring service

Disconnect this video product from the power supply immediately and refer servicing to qualified service personnel under the following conditions.

1. When the power-supply cord or plug is damaged.
2. If liquid has been spilled, or objects have fallen into the video product.
3. If the video product has been exposed to rain or water directly.
4. If the video product does not operate normally by following the operating Instructions in this manual. Adjust only those controls that are covered by the instruction manual as an improper adjustment . Other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.

Safety Check

Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.

1.4 Physical Description





ACM-3703

1. **Ethernet Indicator LED**
   The LED will indicate ethernet speed and active states after IP camera has connected completely.

2. **Power LED**
   The LED will light up after IP camera has successfully completed the boot process

3. **Reset Button**
   Step 1: Switch off IP device by disconnecting the power cable
   Step 2: Press and continue to hold the Reset Button. Reconnect the power cable while continuing to hold the reset button.
   Step 3: Keep holding the reset button depressed around 16 seconds, release the reset button. The unit will start up with factory default settings.

Model	ACM-3703
Picture	
Type	Rugged M12 Connector

4. **Ethernet Port**

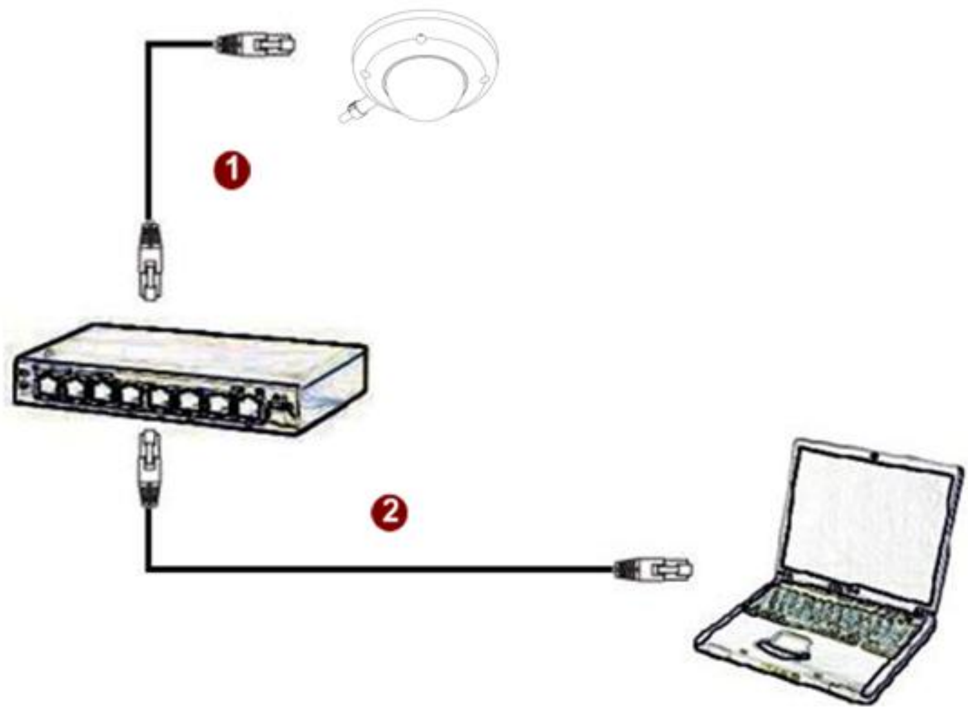
The IP device connects to the Ethernet via a male M12 D-code Ethernet connector(ACM-3703)

The Ethernet port supporting Power over Ethernet.

Supporting NWAY, this IP device can auto detect the speed of local network segment (10Base-T/100Base-TX Ethernet).

1.5 Basic Connections

Follow the procedures below to connect the IP device to the respective apparatuses.

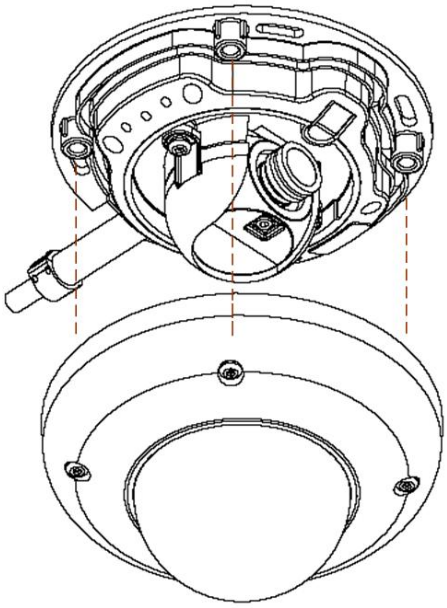


1. Connect this IP device's ethernet port to an Ethernet (M12 connector). IP device has only PoE built-in, you must regard it as a PD and connect it directly to a PSE device like PoE switch.
2. Connect a PC to the Ethernet hub

NOTE: You may find a support package for help you getting familiar with PoE. Please visit our web site, and get the support document TS-00040.

1.6 Installation Procedure

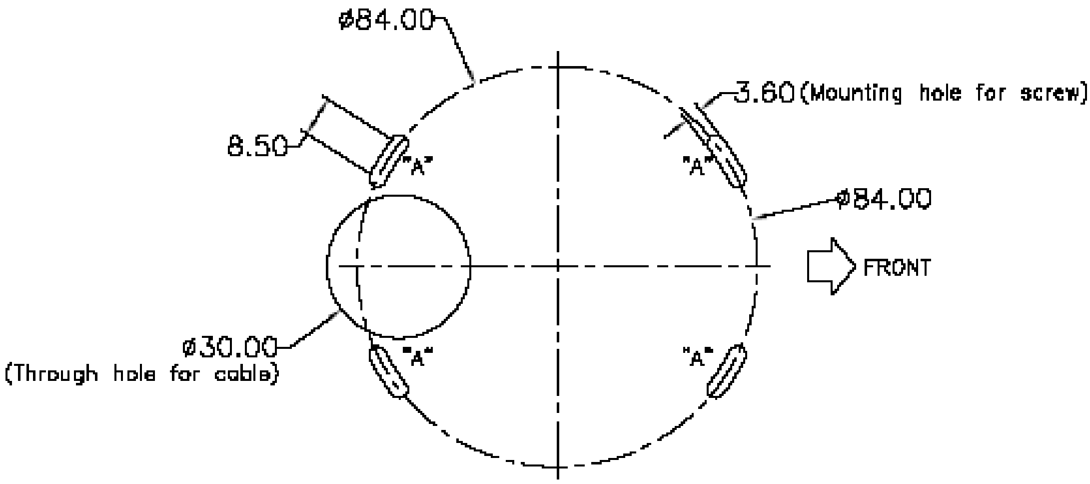
Using the supplied allen/hex key, lossen the 4 screws holding the cover and remove it



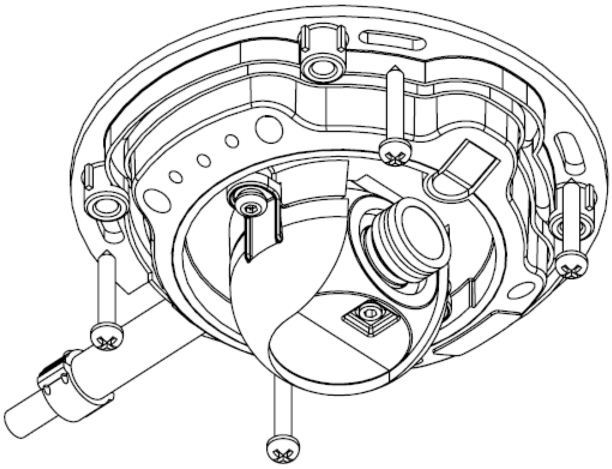
1.6.1 Ceiling Mount / Surface Mount

1.6.1.1 Route the cable through a ceiling,use the drill template, and drill a Through-hole for cable with φ 28.00 on the ceiling. Or cut out the cable exit hole at the rear of the cover

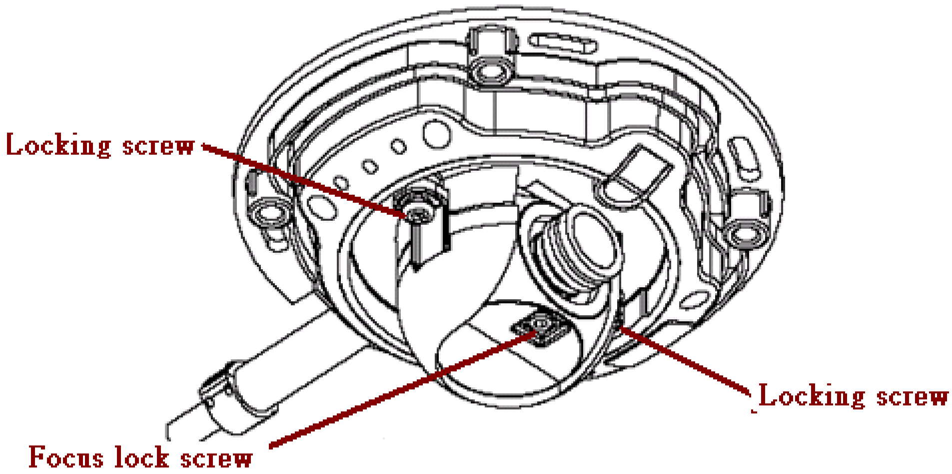
Drill Template



1.6.1.2 Tighten the camera body to ceiling with 4 screws



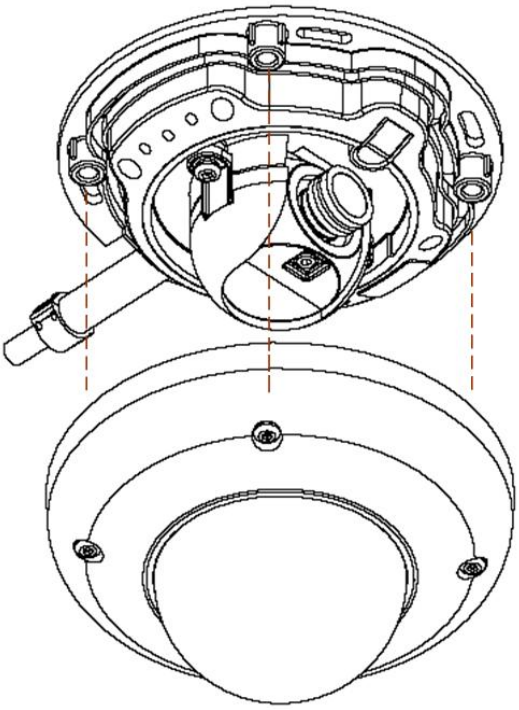
1.6.1.3 Adjust the lens position and focus



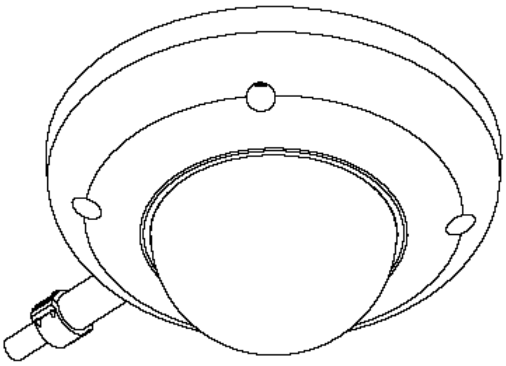
1. **<u>Adjust position</u>**
   Using the supplied allen/hex key, lossen the locking screws, move the lens to the desired position, and gently retighten the locking screws.

2. **<u>Adjust focus</u>**
   Using the supplied allen/hex key, lossen the focus lock screw, Manually rorate the lens to adjust the focus until the image is satisfactory.

1.6.1.4 Replacing the cover, tighten the cover to ceiling with hold screws



1.6.1.5 Done



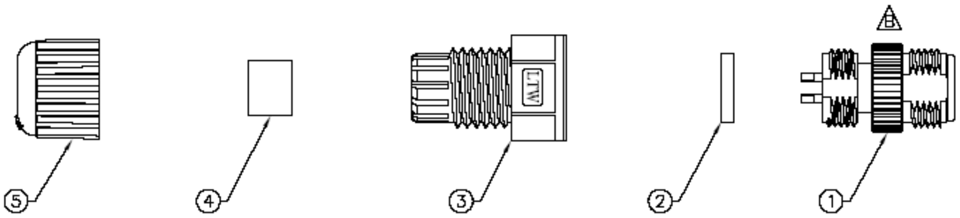
NOTE: Camera shooting direction adjustment along with the cover installation. Also the tips for adjustment.

1.6.2 Assembly of Field Installable Through Adaptor

Apply these accessory of field installable through adaptor to achieve system warterproof completely.

1.6.3.2 M12 Field Installable Through Adaptor (ACM-3703 Only)

Connnect Industrial M12 Ethernet hub using shielded cables is recommended. Apply the field installable M12 D-code screw-in connector (male) to achieve M12 cable extension or others.



Assemble the installable feed through adaptor



Insert the extension cable



Connect to the M12 Connector

1.7 Product Specification

		ACM-3701	ACM-3703
Image	Device	Micron Progressive Scan CMOS	
	Size	1/3 inch	
	Pixels - Effective	1280 X 1024	
Min. scene Illumination	Color	0.5 Lux at F1.0 (2400°K, 30 IRE)	
Lens	Lens	f3.6mm / F1.8	
	Viewing Angle	85° (Horizontal)	
Synchronization	Sync. System	Internal	
Functions	Motion Detection	Yes (3 Windows)	
	Electronic shutter	1/5 ~ 1/2,000 sec. (60Hz) 1/5 ~ 1/2,000 sec. (50Hz)	
	Flickerless	1/120 sec. (60Hz) 1/100 sec. (50Hz)	
	BLC	Yes	
	AGC	Automatic (User defined)	
	White Balance	AUTO,INDOOR1,INDOOR2,OUTDOOR1,OUTDOOR2, HOLD CURRENT,MANUAL	
S/N Ratio	S/N Ratio	Better than 44 dB	
Video Compression	Compression	MPEG-4 SP / MJPEG	
	Picture Resolution	SXGA (1280 x 1024) HD 720 (1280 x 720) VGA (640 x 480) QVGA(320 x 240) QQVGA(160 x 112)	
	Image Frame Rate	SXGA at 8 fps HD720 at 10 fps VGA at 30 fps QVGA at 30 fps QQVGA at 30 fps	
External I/O	Reset Button	Factory Default	
	LED	System Status	
Network	Ethernet	Ethernet(10/100 Base-T), Rugged J45 Connector	Ethernet(10/100 Base-T), Rugged M12 Connector
	Protocol	TCP, UDP, IP, HTTP, DHCP, PPPoE, RTP, RTSP,FTP,SMTP,DNS,DDNS,NTP,ICMP,IGMP,ARP,3GPP	
Software	Web Browser	Microsoft Internet Explorer 6.0 or above	
	SDK	ACTi SDK-10000	
	Security	Password Protection: Configured by the administrator	
Operating	Temperature	-20℃~50℃ (-4℉ ~ 122℉)	
Power	Power Requirement	PoE (IEEE 802.3af) with Class 3	
	Power Consumption	2.4W	
Physical	Dimensions (WxHxD)	100 mm x 50 mm	
	Weight	220g (0.48 lb)	